



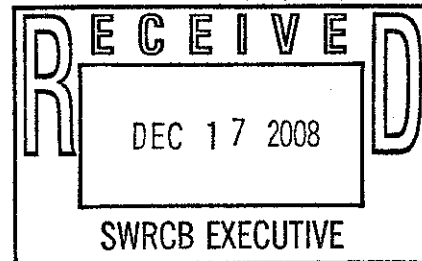
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December 17, 2008

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



RE: Comments on the California State Water Resources Control Board review of State Board Resolution No 68-16 "Statement of Policy with Respect to Maintaining High Quality of Waters in the State of California."

Dear Ms. Townsend:

API appreciates the opportunity to provide comments on the Board's proposed review of the State of California's Anti-degradation Policy and its implementation. API is a national trade association that represents all aspects of America's oil and natural gas industry. Our 400 corporate members, from the largest major oil company to the smallest of independents, come from all segments of the industry. They are producers, refiners, suppliers, pipeline operators and marine transporters, as well as service and supply companies that support all segments of the industry.

The following comments are focused solely on groundwater considerations related to State Board Resolution No. 68-16. This resolution established a policy to maintain the existing quality of high quality waters in California including high quality groundwater, commonly referred to as the "anti-degradation policy". However, historic implementation of this policy has resulted in economic harm to the state and businesses within the state without providing commensurate beneficial protection of high quality waters in the state. In this letter, we identify our key concerns with regard to the current implementation of Resolution No 68-16 and provide our recommendations to improve this implementation.

Key Issues with Current Implementation of Resolution No 68-16

In the context of addressing historic releases of gasoline and other sources of groundwater impacts, Resolution No. 68-16 has been interpreted inconsistently across California. Many Regional Boards have interpreted this Resolution as requiring de facto active remediation of sources of groundwater contamination within the state, with an end goal of achieving drinking water standards or non-detect concentrations of constituents in groundwater regardless of the actual or potential future uses of the groundwater. At many clean-up sites, active remediation requires expensive and resource intensive efforts that do not necessarily result in reduction of risk or increased protection of drinking water

resources. Regulatory interpretation across the state related to Resolution No. 68-16 seems to be inconsistently applied with consideration of the original balancing clause "consistent with maximum benefit to the people of the state". Consideration of the following issues could yield more flexible policies that support the use of more sustainable and cost effective groundwater remediation approaches in keeping with the original balancing criteria:

Protect Groundwater Quality: Resolution No. 68-16 applies to high quality waters. For this purpose, a three-tiered classification system has been established for rating of surface water quality, with different requirements for the different tiers. However, no such tiered system has been established for groundwater. A tiered classification system for groundwater (such as is utilized by many states) applied consistently across California, would allow the highest standards of protection to be applied to the highest quality groundwater resources. Non-beneficial use designations for areas where natural water quality or wide-spread anthropogenic impacts preclude foreseeable beneficial use would further focus restoration efforts to areas with higher quality groundwater.

Consistent Consideration of Assimilative Capacity: Assimilative capacity, the ability of water to handle certain levels of discharges without suffering a degradation in quality, is explicitly considered in the evaluation of discharges to surface water and implicitly considered for some types of discharges to groundwater. Resolution No. 68-16 applies to anyone (surface water impoundment operators, agriculture, dairy, other industries, septic system owners, sewage treatment operators, water purveyors etc.) discharging to groundwater now or in the future. Currently, there is inconsistent application of this principal. As an example, septic system discharges are allowed immediately adjacent to leaking underground storage tank (LUST) cleanups. Septic system discharges allow consideration of assimilative capacity and use of setbacks while LUST cleanups do not generally consider assimilative capacity. Therefore, without an implicit acceptance of assimilative capacity, Resolution No. 68-16 could be interpreted as forbidding septic systems, and routine agricultural/dairy practices in areas with high quality groundwater. In addition, this may also have implications for water purveyors managing groundwater basin recharge programs. Allowing consideration of assimilative capacity for the activities mentioned above but not when establishing LUST-related groundwater remediation requirements, raises questions of fairness, consistency and of appropriate allocation of resources. Consistent and explicit consideration of the assimilative capacity of groundwater should be a part of any improved implementation of Resolution No. 68-16.

Recognize the Performance of Natural Attenuation: Many of the regional water boards require the use of active remediation systems for restoration of groundwater affected by gasoline releases or other unauthorized releases. Today, we recognize that many active remediation systems have not produced the results we had hoped for. Nationwide greater than 50% of LUST sites have been in remediation for greater than 10 years (USEPA, 2007¹). For many sites, active remediation technologies that achieve partial source removal often have only a minor effect on the total remediation timeframe relative to natural attenuation (NA) alone (Newell and Adamson, 2005²). Efforts to achieve remediation goals

¹ USEPA, 2007. Developing Strategies for the National Cleanup Program, Judy Barrows, Division Director, Office of Underground Storage Tanks. Presentation to the Industry Benchmarking Meeting, May 22, 2007

² Newell, C.J., and D.T. Adamson, 2005. "Planning-Level Source Decay Models to Evaluate Impact of Source Depletion on Remediation Timeframe," *Remediation*, 15(4), 27-47.

over shorter timescales require energy intensive active remediation systems that are often ineffective, as acknowledged in the Porter-Cologne Water Quality Control Act.

For petroleum-contaminated sites, NA is an energy-efficient and sustainable remedy that given sufficient time, results in permanent contaminant destruction. Consistent guidance across the State of California that encourages use of NA in situations where longer restoration timeframes can be tolerated will allow remediation goals to be met in a more sustainable fashion, i.e., with less energy use, less co-pollution from active remediation systems and at a lower cost.

Align Remediation Timeframes With Likely Future Water Use Needs: When high quality groundwater is degraded by unauthorized discharges, Resolution No. 68-16 does not specify a specific time requirement for restoration. The use of remediation timeframes that are consistent with the timeframe for likely future use of the resource would further promote the selection of more sustainable remediation approaches. For example, in urban areas where shallow groundwater is unlikely to be utilized in the foreseeable future, an acceptable remediation timeframe might be on the timescale of decades. Over this timescale, natural attenuation is likely to achieve the desired remediation of the groundwater resource.

Consideration for extended remediation timeframes is consistent with prior State Board rulings on case appeals such as the "Walker Decision". Implementation of guidance that balances restoration time with the reasonably expected demand for a groundwater source would ensure that possible future water sources are remediated while providing flexibility to use environment-friendly remedies such as NA.

Recommended Approach to Revise Implementation of Resolution No 68-16

API recognizes that conceptual changes to the application of Resolution No. 68-16 will require careful consideration for effective implementation. For this purpose, we recommend the formation of a stakeholder group (including dischargers, regulated industries, regulators, water purveyors and other interested parties) to consider these issues and recommend improvements to the implementation of Policy 68-16 as specifically applied to restoration of groundwater in the State of California. The Water Board should publicize this effort and actively solicit participants in order to ensure broad representation of the affected parties (including oil and gas, agriculture, sewage treatment facility operators, etc.). The issues addressed by the stakeholder group should include the following topics:

Protect Groundwater Quality

- Strategies for tiered classification of groundwater including consistent identification of aquifers with no or limited beneficial use (e.g. perched water, high TDS, limited yield, heavily impacted by anthropogenic sources), improving alignment with classification approaches used for surface water.
 - Strategies for implementation of risk-based approaches for identifying and protecting potentially vulnerable, high-value water supplies.
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Consistent Consideration of Assimilative Capacity

- Strategies for assessing the assimilative capacity of aquifers in design of site-specific groundwater remediation systems at LUST sites.

Recognize the Performance of Natural Attenuation

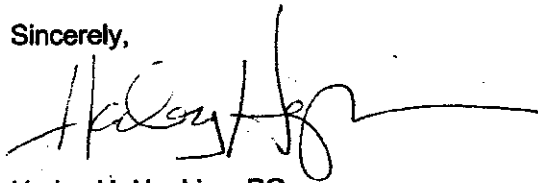
- Approaches for evaluating the benefits and costs of remediation options and methods for selecting sustainable remediation alternatives.
- The use of risk-based approaches that identify the short-term remediation requirements to ensure human health and ecological protection while maintaining the long-term goal of complete resource remediation.
- Type and frequency of future, long-term groundwater monitoring and sampling at sites where natural attenuation has been demonstrated to be an effective restoration technology.

Align Remediation Timeframes With Likely Future Water Use Needs

- Benefits and limitations of flexible groundwater management approaches adopted by regional water boards (e.g., San Diego) and other regulatory agencies nationwide that uses remediation goals which are consistent with expected current and future groundwater use.
- The effectiveness of current and possible future options for institutional controls.

API believes that reform of Resolution No. 68-16 that incorporates the key points described above will result in meaningful improvement in California's groundwater quality and allow flexible approaches to groundwater remediation activities in the future. This reform can avoid unnecessary economic burdens on California's citizens and industries without compromising valuable groundwater resources. API looks forward to working with the State Board and other groundwater stakeholders on this important issue. Feel free to contact Bruce Bauman (202-682-8345) regarding API participation in future activities on Resolution No. 68-16.

Sincerely,



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